Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1.   (Original) A data relay processing method wherein, in the case that at least one piece of information is sent from respective terminals, among a piece of information on schedule of usage of transmission band, another piece of information on schedule of transmission band which is able to be assigned, another piece of information on schedule of a term where an transmission band is able to be assigned or exchanged, and another piece information on a necessary cost when a transmission band is assigned or exchanged, the sent information is held, and

wherein said respective schedules of said respective terminals are received, based on at least said information from another terminal which is previously held, said transmission band is reserved, assigned or exchanged or said communication price is determined.

2.   (Original) A data relay processing method wherein, based on history information of the past processing record with respect to processes of assigning or exchanging of the transmission band between respective terminals and based on information with respect to said transmission band, said transmission band is reserved, assigned or exchanged or a communication price is determined.

3.   (Original) A data relay processing method according to Claim 2, wherein said history information is announced in said respective terminals, and intervals between the announcements are adjustable.

4.   (Original) A data relay processing method according to Claim 2, wherein said history information is renewed at predetermined time intervals or in accordance with whether said assigning or exchanging are possible or not.

5.   (Original) A data relay processing method wherein, in the case that there exists a transmission band utilized by reserving a transmission band, and a transmission band utilized without reserving a transmission band, information on

usage frequency of the transmission band utilized by reserving said transmission band is defined by dependence information, and based on the dependence information and information with respect to said transmission band is reserved, assigned or exchanged or a communication price is determined.

6.   (Original) A data relay processing method characterized in that, in the case that there exist a transmission band utilized by reserving the transmission band and a transmission band utilized without reserving the transmission band, information on usage frequency of said transmission band utilized by reserving the transmission band is defined as a dependence information, intervals of announcements of said dependence information is controlled said transmission band is reserved assigned or exchanged or communication price is determined.

7.   (Original) A data relay processing method according to Claim 5, wherein said dependence information is renewed at predetermined intervals.

8.   (Original) A data relay processing method according to Claim 6, wherein said dependence information is renewed by predetermined intervals.

9.   (Original) A data relay processing method wherein in the case that there exist more than two transmission resources respective that make either one of the processes of reserving, assigning or exchanging transmission bands possible, by utilizing information on goodness of fit exhibiting a possibility of being selected at least for each of said transmission resources that is able to be processed and information on deadline time of said selection, said transformation resources are selected or a communication price is adjusted.

10.   (Original) A data relay processing method for controlling announcement intervals of route information for relaying data based on at least one piece of information among loads of terminals for carrying out data processing, a buffer capacity utilized for data processing, transmission quality, and available transmission band.

11.   (Original) A data relay processing method for controlling announcement intervals of at least one piece of information, based on at least one piece of information among loads of terminals for carrying out data processing, a buffer capacity utilized for data processing, transmission quality, and available transmission band, among said loads of terminals for carrying out data processing, said buffer capacity utilized for data processing, said transmission quality, and said available transmission band.

12.   (Original) A data relay processing unit comprising: a transmission band management means wherein in the case that at least any one piece of information is sent from respective terminals, among a piece of information on schedule of usage of transmission band, another piece of information on schedule of transmission band which is able to be assigned, another piece of information on schedule of a term where an information band is able to be assigned or exchanged, and another piece information on a necessary cost when a transmission band is assigned or exchanged, said transmission band management means holding and managing the sent information; and

a transmission band reservation management means wherein in the case that said respective schedules of said respective terminals are received, based on at least said information from at least another terminal which is previously held by said transmission band management means, said transmission band reservation management means reserving, assigning or exchanging a transmission band or determining a communication price.

13.   (Currently Amended) A program recording medium having programs recorded for making a computer carry out all of or a part of respective steps of a data relay processing method according to ~~either~~any one of Claims 1 to 10.

14.   (Original) A data relay processing method according to any one of Claims 1 to 8 wherein terms of usage schedules of transmission bands according to relative time are appointed in order to describe a variety of schedules for reserving,

assigning or exchanging said transmission bands or for determining a communication price.

15.   (Original) A data relay processing method according to any one of Claims 1 to 8 wherein a starting point of time of usage schedule of a transmission band according to an offset time are appointed in order to describe a variety of schedules for reserving, assigning or exchanging said transmission bands or for determining a communication price.

16.   (Original) A data relay processing method according to any one of Claims 1 to 8 wherein an extension of usage schedule of a transmission band according to an offset time are appointed in order to describe a variety of schedules for reserving, assigning or exchanging said transmission bands or for determining a communication price.

17.   (Original) A data relay processing method according to Claim 2, wherein an achieved distance of at least one piece of information among said history information and said dependence information is controlled.

18.   (Original) A data relay processing method according to Claim 5, wherein an achieved distance of at least one piece of information among said history information and said dependence information is controlled.

19.   (Original) A data relay processing method according to Claim 6, wherein an achieved distance of at least one piece of information among said history information and said dependence information is controlled.

20.   (Original) A data relay processing method according to Claim 10, wherein an achieved distance of at least one piece of information among said route information for relaying data, said loads of terminals for carrying out said data processing, said buffer capacity used for said data processing, said transmission quality, and said available transmission band is controlled.

21.   (Original) A data relay processing method according to Claim 11, wherein an achieved distance of at least either one piece of information among said route information for relaying data, said loads of terminals for carrying out said data processing, said buffer capacity used for said data processing, said transmission quality, and said available transmission band is controlled.

22.   (Original) A data relay processing method according to Claim 10, wherein an achieved distance of at least one piece of information among said route information for relaying data, said loads of terminals for carrying out said data processing, said buffer capacity used for said data processing, said transmission quality, and said available transmission band width is controlled based on at least one piece of information among said route information for relaying data, said loads of terminals for carrying out said data processing, said buffer capacity used for said data processing, said transmission quality, and said available transmission band.

23.   (Original) A data relay processing method according to Claim 11, wherein an achieved distance of at least one piece of information among said route information for relaying data, said loads of terminals for carrying out said data processing, said buffer capacity used for said data processing, said transmission quality, and said available transmission band is controlled based on at least one piece of information among said route information for relaying data, said loads of terminals for carrying out said data processing, said buffer capacity used for said data processing, said transmission quality, and said available transmission band.

24.   (Original) A data relay unit comprising: packet classification rules for classifying packets, a packet classification means for classifying packets based on said packet classification rules, band reservation rules for managing rules for reserving transmission bands, and a band reservation means for reserving transmission bands based on said band reservation rules and the results of packet classification.

25.   (Original) A data relay unit according to Claim 24 wherein said packet classification means classifies packets based on at least one or more pieces information among IP addresses, port numbers and protocol types.
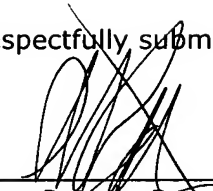
26.   (Original) A data relay unit according to Claim 24 wherein said band reservation rules describe available transmission bands based on at least one piece of information among IP addresses, port numbers and protocol types.

27.   (Original) A data relay unit according to Claim 24 comprising priority addition rules for managing rules for adding priority information, priority adding means for adding priority, priority processing rules for managing rules of the processing method of priority and a priority processing means for carrying out priority processing based on added priority.

28.   (Original) A data relay unit according to Claim 27 wherein priority is added based on at least one or more pieces of information among priority of terminals, priority of each media, and priority of each frame.

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29-40. (Cancelled)

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Kathleen Libby

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